

Atty. Docket No. 2001-0138-03
USSN 10/629,364

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-24. (cancelled):

25. (previously presented) A process for producing an elongated electrode for use in a laser comprising the steps of:

- a) fabricating an elongated electrode structure comprised of one or more electrical conducting materials and having a long dimension of at least 50 centimeters and a width of at least 3 centimeters.
- b) creating a porous insulating layer on a portion of the elongated electrode, the portion defining a discharge region having a width of at least 3 millimeters.

26. (currently amended) A process as in Claim 25 wherein the one or more electrically conducting materials comprise a lead rich brass having a lead content of greater than 1 percent, and the step of creating the porous electrical insulating layer comprises operating the electrode in a fluorine containing laser gas to permit a porous insulating layer to build up on the lead rich brass.

27. (previously presented) A process as in Claim 25 wherein the step of creating the porous insulating layer comprises spreading insulating particles on the discharge region of the elongated electrode structure.

28. (previously presented) A process as in Claim 25 wherein said step of creating the porous insulating layer comprises the steps of:

- a) mixing insulating particles in a molten metal to produce a discharge section of the elongated electrode the section comprising a filler metal and the insulating particles,

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b) operating the elongated electrode in a fluorine containing laser gas environment to permit a portion of the filler metal to sputter away leaving a porous insulating layer covering the discharge region.

29. (previously presented): A process as in Claim 28 wherein the insulating particles have dimensions in the range of about 50 to 150 microns.

30. (previously presented) A process as in Claim 28 wherein the particles have dimensions in the range of about 50 to 150 microns.

31. A process as in Claim 25 wherein the step of creation of porous insulating layer includes the substeps of:

- a. creating a plurality of nucleation sites on the discharge surface;
- b. operating the electrode in a laser containing fluorine gas so as to permit the porous insulating layer to grow on the discharge surface.

32.-52. (cancelled)